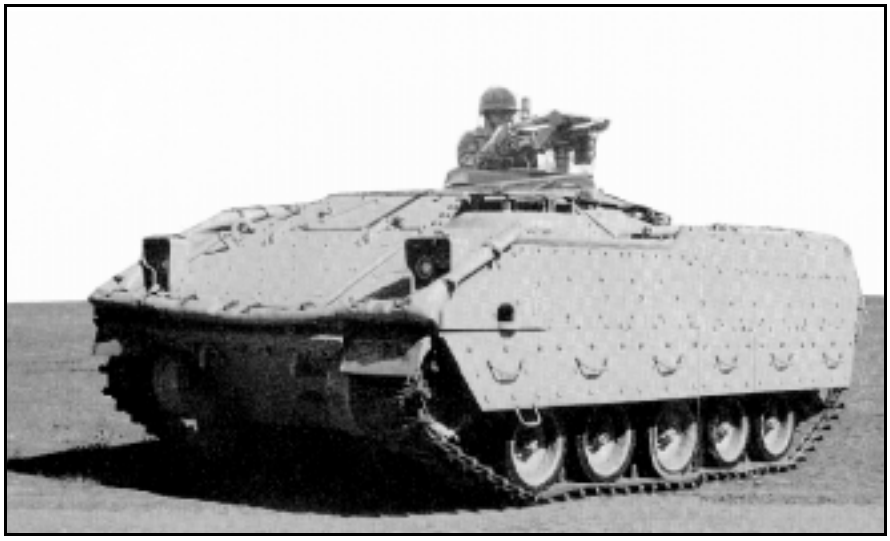
Making the Case for An Airborne Infantry Fighting Vehicle

by Stanley C. Crist



Author's concept of an airborne IFV on shortened Bradley chassis.

The XM8 Armored Gun System (AGS) will replace the M551A1 Sheridans that presently serve with the 82d Airborne. The AGS will also be used by light cavalry units and will probably enter service beginning in 1997. Although there has been some criticism of the idea of using a light tank to fight main battle tanks (MBTs), the fact is that there is no viable alternative presently available, if one adheres to the philosophy that the best antitank weapon is another tank.

The notion of employing huge gliders to transport usable numbers of M1 tanks to a combat zone, as described by Major E.C. Parrish III in "Gliders Carrying Main Battle Tanks?" (*ARMOR*, September-October 1993), is technically feasible, but it ignores economic and political realities that would almost certainly defeat such a project long before it got off the drawing board. Given the time required to design, build, test, and field military aircraft, the tank-carrying glider would probably not be in service (assuming cooperation of the Air Force, which is doubtful) until well into the next century. The AGS, on the other hand, being basically an off-the-shelf design, will be available almost immediately to give rapid deployment forces some much-needed combat power.

Comparing the AGS with the World War II M22 Locust light tank is not really valid. While the level of armor protection is similar, the 37-mm main gun of the Locust did not have a prayer of defeating the heavy armor of the German Panthers and Tigers, but the AGS' 105-mm gun can punch through any opponent it is likely to encounter.

Major Parrish does make one statement, though, that illuminates a deficiency that AGS proponents have not addressed: "Like it or not, light infantry can't move as fast... as armor, which puts our toughest soldiers at a severe disadvantage." Airborne infantry — while possessing superior strategic mobility — has the least tactical mobility once it is in-theater.

Recent testimony of the degree to which light infantry is impaired in this regard, especially in desert operations, comes from Captain Sean Corrigan ("The 82d Airborne In Saudi Arabia," *ARMOR*, September-October 1993), who commented, "If the situation had not been so serious, my scout platoon would have been a funny sight trudging through the sand under rucksacks over-stuffed with...gear. The defensive sector staggered us with its frontage and depth." He goes on to say, "As a lightly armed, unprotected, and dismounted task force, we could not have stopped a determined armor attack of any significant size."

This situation could be corrected, however, if we were willing to look to a former adversary for an example. The BMD combat vehicle provides Russian paratroopers with the ground mobility that mechanized infantry has long enjoyed. An Airborne Fighting Vehicle (AFV) would provide at least a ten-fold increase in tactical mobility, survivability, and overall combat effectiveness for U.S. parachute infantry.

This concept is not just a luxury; tanks need infantry support. In order to work together, infantry needs the same degree of mobility as tanks. This will probably prove to be even more important in operations involving the AGS. Because of its lesser armor protection, relative to the Abrams, AGS doctrine will almost certainly emphasize speed. To hold out against a capable and determined foe until heavy forces arrive will mean pushing the limits of maneuver warfare to the utmost. Using dismounted light infantry in such circumstances would be courting disaster, but light mechanized troops in Airborne Fighting Vehicles could easily maintain the pace.

It would seem logical to use the Bradley Fighting Vehicle (BFV) as the basis for the AFV design. This would minimize development time and expense by using existing, battle-proven components. As weight is an important factor for an air-droppable vehicle, the two-man turret assembly should be replaced with a one-man mini-turret mounting a 40-mm Mk19 grenade machine gun or, perhaps, a 20-mm cannon (for ammunition compatibility with the RAH-66 Comanche helicopter that will accompany light forces in the future). While this might appear to be a step backwards, armament-wise, it does result in other advantages (and, in any case, the weight must come off if the AFV is to be air-droppable). One of the aforementioned advantages is that, without the turret, the chassis can be shortened by more than three feet — without reducing the number of infantrymen that can be carried — thereby

further decreasing vehicle weight. In addition, the shorter overall length might permit one more AFV to be loaded on board the transporting aircraft.

With a properly designed cargo hatch, it may be possible to have a certain percentage of Airborne Fighting Vehicles serving as mortar carriers. Mortars would probably be the only indirect fire support that light forces could rely on in fast-moving operation, as according to Captain William Prior ("Cavalry Mortars," *ARMOR,* November-December 1993), "...mortars have no logistical tail or reinforcing mission that may cause them to fall behind out of supporting range during fluid cavalry operations, as is often the case with supporting artillery."

Captain Prior also notes that, "Timely and accurate (indirect) fire can multiply the effects of the cavalry troop's direct fires many times and spell the difference between success and defeat on the battlefield." The effectiveness of mortars against heavy armor is soon to undergo a quantum leap in capability, as terminally-guided projectiles enter service, making high-mobility mortar "tracks" more important than ever.

Since a direct-fire antitank weapon is highly desirable for an infantry fighting vehicle, one should be included in the planning of the AFV. The TOW's characteristics make it less than ideal for the fast-paced combat envisioned for AGS-equipped forces. As Captain John Tien says of his experience in Southwest Asia, "In the high-speed mobile warfare of DESERT STORM, the M901A1 TOW launchers were basically ineffective; neither could we shoot them on the move, nor could we afford the stationary engagement time." ("The Future Scout Vehicle," *ARMOR,* March-April 1993). This may or may not apply to the BFV, with its stabilized weapon system, but the need for the gunner to continuously track the target from launch to impact cannot be eliminated. This trait of wire-guided missiles seriously limits the rate of fire.

Fortunately, there is a weapon system — Javelin — that will be very well suited to AFV requirements. A "fire-and-forget" missile, Javelin (see "Javelin: A Leap Forward," *INFANTRY,* January-February 1992) has a range of 2000 meters, which should be adequate for most scenarios. Even without a stabilized sight, the AFV would not have to halt for more than a few seconds to shoot. The ability to use Javelin in dismounted ambushes can further amplify the light force's fighting ability. Self-guided weapons (such as Javelin) may prove to be as revolutionary for ground warfare as they were for air combat.

Above, two views of a model illustrating author's concept for an airborne IFV based on a shortened Bradley chassis. Javelin missile and ASP 30-mm cannon provide firepower.

Finally, although it seems unlikely that U.S. ground troops will have to operate without air superiority in the foreseeable future, the AFV can — if need be — provide air defense coverage of the combat team by carrying an ample supply of Stinger missiles.

The back cover of the September-October 1993 issue of *ARMOR* posed the following questions regarding the use of the AGS: "How should armor and light infantry forces work together? Is there room for improvement in how this type of operation is conducted?" It is not logical to use World War II methods — tanks teamed with dismounted infantry — in an era of high-mobility warfare. To do so would invite both excessive casualties and mission failure. As Colonel Donald Elder so eloquently phrased it in "Force Projection and Combined Arms" (*ARMOR,* November-December 1993), "By opting for anything less than the mounted combined arms team...you by no means have (the most capable combat force)." An Airborne Fighting Vehicle would maximize the warfighting ability of early entry forces at relatively little cost, by bringing balance to the AGS/Comanche/infantry team. Can we afford not to make it?

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